

## **Trace element levels in the sediments of Tanjung Karang estuary, Selangor, Malaysia**

### **ABSTRACT**

Sediment samples were obtained from six stations in the Tanjung Karang Estuary, Malaysia and analyzed for the trace elements such as Fe, Mn, Zn, Cu and Pb. Concentration of these elements ranged from 2.04-4.50 %, 446--698 gg-1, 26.3-85.7 gg-1, 2.63-18.1 gg-1 and 10.6-28.0 gg-1 for Fe, Mn, Zn, Cu and Pb, respectively. Their concentration values also varied with depth at all stations. The concentration values of Mn and Fe recorded in Tanjung Karang Estuary were higher than those recorded earlier in the Straits of Johor and Juru, Penang, which were regarded as being relatively contaminated. Obtained ratios of metal/Fe at the Tanjung Karang estuary were higher than the polluted area at Kiel Bight, Germany. This indicates that the concentration of trace elements at the sampling sites were influenced by the mangrove system as biological source and not anthropogenically related.

**Keyword:** Tanjung Karang estuary; Trace elements; Concentration value